

## **INTEGRATED CIRCUIT AND RELATED IMPROVEMENTS**

### **ABSTRACT**

5 An improved integrated circuit and a related system apparatus and method. The integrated circuit includes a plurality of logic area or user logic areas; and an actively switchable network capable of selectively connecting at least one logic area with another logic area. In particular, the plurality of logic areas include an array of logic-gates or logic-blocks or custom logic which form functional blocks. The  
10 integrated circuit can provide a chip-architecture where the functional blocks are specific hardware functional blocks, hardware functional blocks that are parameterized, and/or programmable functional blocks including programmable processors. Also, the functional blocks can act as objects requesting and providing services to other objects on the actively switchable network so that, when a functional  
15 block is a programmable processor, the functional block optionally implements objects, with the programmable processor making one, some or all objects thereof visible to other objects connected to the actively switchable network.

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